

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently Amended) A method for on demand content delivery in an on demand platform ~~for the delivery of on demand digital assets, the on demand platform including a network transport composed of network elements, wherein a content delivery path extends from an application server, through the network transport, to a client, and wherein at least one of the network elements is a conditioning device, the method comprising:~~

delivering content using ~~the~~ a content delivery path;

during content delivery, at a network element, inserting data into the content delivery path to produce a modified content stream containing inserted in-stream data, the inserted data including a session state information of ~~a session resource pool, the session resource pool including at least a state of~~ at least one device in the content delivery path downstream from the network element; and

processing the modified content stream to perform state information recovery of at least one device in the content delivery path ~~a device manager managing a plurality of devices, as content passes through the content delivery path; and~~

~~processing the content at a conditioning device to condition the content as the content passes through the content delivery path, the content being conditioned in accordance with instructions present in the in-stream data, whereby the in-stream data is actively used in the network to direct content conditioning as the content traverses the network transport.~~

2. (Currently Amended) The method of claim 1 wherein the in-stream data includes diagnostic information and wherein the method further comprises:

during content delivery, at a network element, extracting the diagnostic information from the modified content stream ~~delivery path;~~ and

performing diagnostic analysis as the content passes through the content delivery path.

3. (Canceled)

4. (Original) The method of claim 1 wherein the in-stream data is inserted into the content delivery path at an originating application server.
5. (Original) The method of claim 1 wherein the in-stream data is inserted into the content delivery path at an intervening application server.
6. (Original) The method of claim 1 wherein the in-stream data is inserted into the content delivery path at an intervening network element.
7. (Currently Amended) The method of claim 1 further comprising:  
extracting the in-stream data at a network element in ~~the~~ a transport network.
8. (Original) The method of claim 1 wherein processing the content includes encrypting the content.
9. (Original) The method of claim 1 wherein processing the content includes replacing a portion of the content with replacement content.
10. (Original) The method of claim 1 wherein processing the content includes conducting a validation procedure.
11. (Original) The method of claim 1 wherein processing the content includes conducting flow control procedures.
12. (Original) The method of claim 1 wherein the in-stream data includes source device identification information.
13. (Original) The method of claim 1 wherein the in-stream data includes signed identification information.
- 14-16. (Canceled)

17. (New) The method of claim 1, further comprising processing the content at a conditioning device to condition the content as the content passes through the content delivery path, the content being conditioned in accordance with instructions present in the in-stream data, whereby the in-stream data is actively used in the network to direct content conditioning as the content traverses the network transport.

18. (New) The method of claim 1, wherein the at least one device for which state recovery is performed includes an edge modulator in a cable television system.

19. (New) A machine readable storage medium storing one or more machine executable instructions, wherein execution of the instructions results in a session recovery method comprising:

receiving an on demand content stream containing content requested by a client;

extracting session state information from the on demand content stream, the session state information identifying session state information for the computing device receiving the stream;

processing the session state information to perform session recovery at the computing device; and

forwarding the content stream towards the client requesting the content.

20. (New) The machine readable storage medium of claim 19, wherein the method further comprises restoring a session state of an edge modulator in a cable television system.

21. (New) An apparatus, configured to:

deliver on demand content using a content delivery path; and

during content delivery, insert data into the content delivery path to produce a modified content stream containing inserted in-stream data, the inserted data including session state information of at least one device in the content delivery path downstream from the apparatus.

22. (New) A system including the apparatus of claim 21, wherein the system further includes:

a device manager downstream from the apparatus, configured to use the received in-stream data from the modified content stream to restore a session of the at least one device.

23. (New) The system of claim 21 wherein the in-stream data includes diagnostic information and the system further includes at least one network element configured to extract diagnostic information from the content delivery path during delivery of the modified content stream; and

wherein at least one system element is operable to perform diagnostic analysis as content passes through the content delivery path.